

February 4, 2003

## NoaNet Overview and History

In the early 1930's, the Public Utility Districts (PUDs) were formed by the Washington legislature to bring the technology of electrical power to citizens in rural areas. While private companies were quickly developing infrastructure to supply the needs of people in urban areas, it was often uneconomical to serve many rural folks. Without the electricity provided by the PUDs, there would be an even greater economic disparity between urban and rural citizens.

Today, fast telecommunication is one of the technologies that power the growth and maintenance of our economy. Those without access to it risk being marginalized. 16 rural public utility providers in Washington have recognized this and stepped forward to help establish a level playing field for economic development across the state. The Northwest Open Access Network (NoaNet) was incorporated in Washington about three years ago to provide a method to bring high bandwidth to rural communities when private enterprise does not see a financial return in the appropriate timeline for it to invest in the necessary infrastructure.

To develop its Telecommunications Network, NoaNet has leased 1200-miles of fiber optic cable in Washington State from Bonneville Power Administration (BPA). NoaNet has made the Telecommunications Network available to utilities and communities including NoaNet Members, and other entities that provide cost-based telecommunications services in Washington State. Members will use the NoaNet fiber optic system for utility purposes such as real-time metering, energy management, load control and networking among remote utility facilities. NoaNet will make excess capacity available to others on a cost-based, nondiscriminatory basis.

#### NoaNet Members

NoaNet in Washington is a non-profit mutual corporation originally sponsored by 16 public utilities in Washington. Most of those entities are developing their own "middle-mile" and "last-mile" fiber networks to extend the NoaNet reach from the backbone into their county and communities.

A financially separate entity, NoaNet Oregon successfully completed its initial funding in February, 2002 and began operating its 1100-mile network at the end of 2002. NoaNet Oregon is a non-profit Cooperative made up of Members and non-Member participants. Because municipalities cannot be Members of a cooperative, they are participating in the costs and benefits of NoaNet Oregon as non-voting participants.

### Financial base

The financial base of NoaNet is secured with its members backing a short-term line of credit. NoaNet in Washington and NoaNet Oregon have separate financial instruments. NoaNet successfully issued a long-term bond issue for Washington that will convert their line of credit into a 15-year obligation. Of course, as non-profit entities, NoaNet charges customers its cost based pricing for access to this network and NoaNet of Washington expects to reach self-sufficiency after approximately 18-months.

The Bonds are fixed rate revenue bonds with interest repayment rates ranging from 5.05% to 6.44% over the next 15 years. The low rates secured are a testament to the faith investors have in the security of NoaNet and its members. Proceeds of the Outstanding Notes and the Bonds to be used for capital costs have or will finance construction of the remaining Telecommunications Network.

### Bonneville fiber

Bonneville is an agency of the United States of America that, through its power business line, markets the electric power and energy produced at 29 federal dams on the Columbia and Snake Rivers in the Pacific Northwest, representing approximately 40% of the region's total electricity supply. To deliver this power and energy to its customers, Bonneville's transmission business line operates a transmission system that includes 15,000 miles of high-voltage transmission lines. The operating reliability of this transmission system depends to a large degree on a high-speed, flexible and reliable telecommunications system to maintain a high level of system control and protection. In the past, Bonneville and other utilities relied upon telephone lines, power lines and microwave communications for transmission system control and protection.

As a component of its transmission system, Bonneville has in recent years installed fiber optic cable to increase the capacity, flexibility and reliability of its communications system. As of January 1, 2001, Bonneville has installed over 2,200 miles of fiber optic cable. Bonneville has constructed its fiber optic system primarily for its own existing and projected requirements over the next 25 years and, in certain cases, in cooperation with telecommunications service providers, utilities and others.

Because a portion of the telecommunications capacity of its fiber optic network is in excess of its present needs, Bonneville has made dark fiber optic cable available for public benefit use in rural communities in the Pacific Northwest and also leases dark fiber optic cable to various for-profit utilities, telecommunication service providers and others.

Bonneville has reserved four fibers in its fiber optic cables for public benefit use. The purpose of the public benefit use is to span the "digital divide" by making high-speed telecommunications service available in rural areas of the Pacific Northwest at rates comparable to those in urban areas.

### NoaNet network

The majority of NoaNet's backbone is the approximate 2200+ miles of fiber cable strung by the Bonneville Power Administration (BPA) to support its operations throughout the Pacific Northwest. BPA recognized the advantage of providing public access to a portion

of that fiber and identified NoaNet as the best corporate structure to achieve that public benefit. To ensure longevity, NoaNet has signed a 20-year license with BPA for use of its fiber.

The Washington loop extends throughout most of the State of Washington. The loop is a scalable, fully redundant fiber ring utilizing state-of-the-art fiber optic equipment. As NoaNet expands its Telecommunications Network, it plans to add modern and efficient lasers to the dark fiber it leases from Bonneville and others. Members and wholesale customers of NoaNet will be responsible for developing and operating communication systems that will connect with NoaNet's backbone system.

A network is more than just a route to transmit traffic from one point to another. To support our extensive system, NoaNet has carefully selected the best fiber-optic equipment to achieve our needs well into the future. We have not had to upgrade or migrate from an older system, so all the equipment is the most advanced available and allows us to offer services in rural areas, not previously available at any cost. In addition, we utilize a top-rate Network Operations Center (NOC) at the Grant County PUD to monitor and respond to the needs of this infrastructure 24-hours a day, 7 days a week.

More than the sum of our lines and equipment, NoaNet proudly boasts of some of the finest technical staff in Washington and Oregon. Their experience and dedication is the reason why NoaNet offers a Service Level Agreement (SLA) of 100%. Most networks require some amount of unanticipated downtime without offering reimbursement, but NoaNet guarantees unprecedented service levels. You are invited to tour our NOC and local point of presence (PoP) facilities as well as meet the people that are the power behind our operation.

Please let us know of any questions you may have regarding our network and offerings. We look forward to working with you.

Sincerely,

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attachments

# WASHINGTON FIBEROPTIC ROUTES

Northwest Open Access Network

**Route Overviews** 







